

### **REMARKS**

Entry of this Amendment and reconsideration are respectfully requested in view of the amendments made to the claims and for the remarks made herein.

Claims 1, 3-8 and 10-22 are pending and stand rejected.

Claims 1 and 8 are independent claims.

Claims 1 and 8 have been amended to present the claims in better form. No new matter has been added.

Claims 1, 3-6, 8 and 10-22 stand rejected under 35 USC 103(a) as being unpatentable over Inukai (USP no. 6,680,577) in view of Hirane (USP no. 4,967,192). Claim 7 stands rejected under 35 USC 103(a) as being unpatentable over Inukai and Hirane and further in view of Hack (USPPA 2002/0030647).

In maintaining the rejection of the claims, the Office Action states "[o]n page 9-10, Applicant argues that Inukai does not disclose a first and second plurality of currents that may be applied in each display period. The Examiner respectfully disagrees, because Inukai discloses that multiple sets of currents can be applied during the first and second phases in the display period (column 3 lines 11-67; column 4 lines 1-19; figures 5A-5E). Simply because Inukai does not specifically disclose the weighting mechanism used by the instant invention does not mean that Inukai does not disclose multiple currents being used during these phases. On page 10-11, Applicant argues that the combination of Inukai and Hirane would not be obvious, because using the levels in Hirane would render the multiple display periods in Inukai useless. The Examiner respectfully disagrees, because Inukai discloses multiple display periods and Hirane discloses multiple current levels and one of ordinary skill in the art would have known that combining these two features to precisely control gradation display would allow for more precise gradation control. Using both time and amplitude provide more precise control and motivation for the combination can be found in Hirane in column 2 lines 46-51."

With regard to the rejection of claims 1, 3-6, 8 and 10-22 as being unpatentable over Inukai in view of Hirane, applicant respectfully disagrees with and explicitly traverses the rejection of the claims.

In rejecting the claims, the Office Action refers to Inukai for disclosing the claim element "the current levels include zero and that the duration of one period [phase] is approximately n times the duration of the other phase wherein n is the number of drive currents that can be used in the display." (see OA, page 3, lines 10-12). In addition, in maintaining the rejection of the claims, the Office Action, in response to applicant's remarks, states "[s]imply because Inukai does not specifically disclose the weighting mechanism used by the instant invention does not mean that Inukai does not disclose multiple currents being used during these phases."

However, the Office Action further states "[h]owever Inukai fails to disclose more than two current levels and wherein the first plurality of drive current comprises a number n of drive current levels" (see OA, page 3, lines 19-20). The Office Action refers to Hirane for teaching the claim element acknowledged to not be disclosed by Inukai (i.e., "the first plurality of drive currents comprises a number n of drive current levels."). (see OA, page 4, lines 1-4).

However, if Inukai fails to disclose the element "more than two current levels and wherein the first plurality of drive current comprise a number n of drive current levels," then Inukai cannot disclose the claim element "the duration of one phase is approximately n times the duration of the other phase," as Inukai fails to disclose n current levels.

As Inukai discloses, in Figures 5A-5F, each frame may be divided into a plurality of partitions, which are divided into a write-in period and a corresponding display period. The write-in period is essentially fixed (63 milliseconds) and the display periods are organized in a decreasing relationship e.g., 1,  $\frac{1}{2}$ ,  $\frac{1}{4}$ ,  $\frac{1}{8}$ ,  $\frac{1}{16}$ ,  $\frac{1}{32}$ , etc. The length of time of each display period is based on the frame time adjusted by the fixed write-in time and a desired number of display periods.

Even if it could be said that the durations of the periods are multiples of each other (e.g., 1 is a 4 times multiple of  $\frac{1}{4}$ ), nowhere does Inukai disclose that the relationship among the periods represents multiples based on the number of current levels,  $n$ , as is recited in the claims.

Hence, even if the teachings of Hirane were combined with that of Inukai, the device resulting from the combination of the teachings would not include periods that are determined based on a number,  $n$ , current levels, as is recited in the claims. Rather, the combined device provides for display periods having a fixed and known relationship that includes multiple currents within each period.

A claimed invention is prima facie obvious when three basic criteria are met. First, there must be some suggestion or motivation, either in the reference themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the teachings therein. Second, there must be a reasonable expectation of success. And, third, the prior art reference or combined references must teach or suggest all the claim limitations.

The Court in KSR v. Teleflex (citation omitted), however, has held that the teaching, suggestion and motivation test (TSM) is merely to be used as a helpful hint in determining obviousness and a bright light application of such a test is adverse to those factors for determining obviousness enumerated in the Graham v. John Deere (citation omitted).

The Court further acknowledged that "a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art... [I]t is important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known." (citation omitted).

Accordingly, the combination of the cited references fails to disclose a material element recited in the claims and, hence, fails to render obvious the subject matter recited in the claims.

For at least this reason, applicant submits that the reason for the rejection of the claims has been overcome.

With regard to the rejection of the remaining claims, these claims depend from independent claims 1 and 8 and, hence, are also allowable by virtue of their dependency upon an allowable base claim

In addition, in rejecting claim 3, the Office Action refers to Inukai "discloses N can be any integer greater than or equal to two." (column 5 lines 38-53). However, a review of this section reveals that N, referred to by Inukai, refers to a number of fields that may be included within a frame. Thus, the value N referred to by Inukai is not comparable to the value n referred to in the claims, as this value n refers to a number of driving currents within a phase. And as previously noted Inukai fails to disclose a number n of driving currents.

For the amendments made to the claims and for the remarks made, herein, applicant submits that the reason for the rejection of the claims has been overcome and respectfully requests that the rejection be withdrawn and a Notice of Allowance be issued.

Applicant denies any statement, position or averment stated in the Office Action that is not specifically addressed by the foregoing. Any rejection and/or points of argument not addressed are moot in view of the presented arguments and no arguments are waived and none of the statements and/or assertions made in the Office Action is conceded.

Applicant makes no statement regarding the patentability of the subject matter recited in the claims prior to this Amendment and has amended the claims solely to facilitate expeditious prosecution of this patent application. Applicant respectfully reserves the right to pursue claims, including the subject matter encompassed by the originally filed claims, as presented prior to this Amendment, and any additional claims in one or more continuing applications during the pendency of the instant application.

Should the Examiner believe that the disposition of any issues arising from this response may be best resolved by a telephone call, the Examiner is invited to contact applicant's representative at the telephone number listed below.

No fees are believed necessary for the timely filing of this paper. However, if any fees are determined to be necessary for filing this paper, the Examiner is authorized to charge Deposit Account no. \_\_\_\_\_, for the payment of such fees.

Respectfully submitted,  
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